REMARKS

Claims 1-16 are pending the application; Claims 9-15 stand rejected. By this Amendment Claims 1-8 and 16 are withdrawn from consideration as drawn to non-elected species and hereby cancelled without prejudice, Claim 10 has been amended, and new Claims 17-18 have been added. These amendments and new claims add no new matter to the application.

Claim 10's typographical error in dependency has been corrected to depend from Claim 9.

Claims 12 and 13 stand rejected under 35 USC 112 as allegedly indefinite; Applicant respectfully traverses these rejections. The Examiner objects to the phrase "and the pharmaceutically acceptable analogs and derivatives thereof" at the end of Claims 12 and 13 as not being defined in the specification. Applicant respectfully submits that this phrase is well supported in the specification at page 22 where, "Pharmaceutically acceptable analogs and derivatives" of a claimed compound are disclosed to include various R- group type substitutions, and any other derivative structural modifications not affecting the disclosed efficacy of these compounds.

In any event, not all claim limitations require support in the specification if they are such that a person of ordinary skill in the art would know what they mean and what to do with them. Applicant further submits that the phrase "Pharmaceutically acceptable analogs and derivatives" also has a regular and ordinary meaning in the relevant art, and the persons of ordinary skill readily understand by this phrase that the claim is to cover not only the explicitly named or described composition, but also all pharmaceutically acceptable analogs and derivatives of the composition. Persons of ordinary skill in the art will readily comprehend just what analogs and derivatives are possible for the compound in the claimed therapeutic setting. Claims 12 and 13 are therefore believe to meet the requirements of section 112 and are believed to be in condition for allowance, and reconsideration is respectfully requested.

Claims 9-15 stand rejected under 35 USC 102 over Kuznicki; Applicant respectfully traverses these rejections. Kuznicki discloses a beverage composition (much like gatorade or the

like) specifically addressed to the matter of "dehydration relative to water in individuals" and "rapid cellular hydration" that contains, in addition to flavanols, many other ingredients, such as electrolytes and carbohydrates. The disclosures of Kuznicki are not directed to therapeutics for diseases of any sort.

Kuznicki does NOT address any kind of general cognitive improvement with his formulation, but rather a very specific "increased cognitive performance after heat dehydration" addressed apparently to that well-known phenomenon of specific mental fuzziness upon significant dehydration. The kind of restoration of mental freshness attendant upon a proper rehydration of the body's cells after exercise, bears no relation whatever to cures for any of the kinds of cognitive impairments that occur in the claimed therapeutic areas, either pathologically or in any other physical or chemical sense. At col.3, lines 36-37 (right after the location cited by the Examiner) Kuznicki actually specifies that the improvements disclosed are believed to be related to the flavanols' effect simply in enhancing cellular rehydration. It may be seen thus that the Examiner has given import to a few words out of context of the whole discussion in Kuznicki. There is therefore no basis whatever to suppose that a drink of Kuznicki's beverage would have any effect, inherently or otherwise, on any of the conditions claimed.

Therefore, Kuznicki neither teaches nor suggests a therapeutic for the claimed conditions, and the claims are thus distinguished over the cited art. Reconsideration is requested. New Claim 17 is added as an alternative, and without prejudice to the allowability of the original claims; new claim 17 further distinguishes over the cited art by substituting the word consisting for the word comprising in original claim 1. Thus Claim 17 can not read upon the formulations of Kuznicki because those formulations have ingredients other than catechins and excipients and the like. New Claim 18 is added as an alternative, and without prejudice to the allowability of the original claims; new claim 18 further distinguishes over the cited art by claiming a specifically labeled container in addition to the novel composition. These distinctions are in addition to the

distinction that Kuznicki's formulations are also not directed to any of the claimed therapeutic targets.

Claims 9 and 12-15 stand rejected under 35 USC 102 over Mitsui Norin JP patent 10245342 of record; Applicant respectfully traverses these rejections. Mitsui Norin discloses only a toxicity diminishing effect on beta-amyloid protein; there is no discussion or suggestion of any effect on fibrillogenesis of amyloid or alpha-synuclein or NAC fibrils. Applicant respectfully submits that, at the time of the priority date of these claims, reducing toxicity had no established connection in the art to inhibiting or reversing fibril or plaque formation, and there is also no basis in the art of that time to establish or predict any degree of inherency. Specifically, there is no way to tell with any certainty that a formulation proposed by Mitsui Norin to reduce amyloid toxicity would also and at the same time necessarily have the effect of inhibiting or reversing amyloid fibrillogenesis, much less alpha-synuclein or NAC fibrillogenesis.

Mitsui Norin is only narrowly directed to nerve cell toxicity supposedly caused by beta-amyloid protein possibly being reduced with tea polyphenols. (See also Rule 132 Declaration of Dr. Alan Snow filed herewith.) It appears that the Examiner implies that Aß nerve cell toxicity NECESSARILY (that is, 'inherently') teaches an effect on inhibition of Aß fibril formation, deposition, accumulation and/or persistence. Dr. Snow states that he does not believe the literature supports such an implication, for reasons as detailed below.

At least one study by Wang (Wang, The Neuroprotective Effects of Phytoestrogens on Amyloid ß Protein-induced Toxicity Are Mediated by Abrogating the Activation of Caspase Cascade in Rat Cortical Neurons, J. Biological Chem., vol 276 no 7, pp 5287-5295, February 16, 2001) (copy attached to Snow Decl. for Examiner's ready reference) reports that "although Aß mediated neurotoxicity [is a] focus of intense interest, the underlying mechanisms are still controversial" (see p 5294, col 2 below fig. 9). Thus, there can be no necessary inference to be drawn from any study of Aß mediated neurotoxicity.

Wang also reports that nerve cell death or neurotoxicity is in fact the result of a cascade involving caspases and reactive oxygen species accumulation (see abstract p 5287 - near end). Also, Zhang (Zhang, Selective Cytotoxicity of Intracellular Amyloid ß Peptide 1-42 Through p53 and Bax in Cultured Primary Human Neurons, J. Cell Bio., vol 156 no 3, pp 519-529, February 3, 2002) (copy attached to Snow Decl. for Examiner's ready reference) reports that nonfibrilized and fibrilized Aß are equally toxic (see p 519, midway thru abstract), and corroborates Wang in suggesting a caspase cell death route (see p 525, col 1, 1st paragraph). This is further refutation that there is no necessary suggestion from any reported study that inhibition of Aß neurotoxicity will also lead to inhibition of Aß fibril formation, deposition, accumulation and/or persistence. There is likewise no suggestion in any of the literature that fibrillogenesis plays any part whatever in the reported cell death.

Wang even reports that the high antioxidant activity of flavanoids *per se* was not able to protect neurons against Aß-induced neurotoxicity (see p 5292, col 1, end of penultimate paragraph); thus teaching away from a suggestion that flavanoids might be useful in preventing Aß fibrillogenesis.

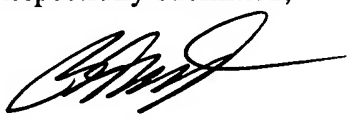
Thus there are no necessary inferences available as teachings to be applied to Aß fibrillogenesis from the cited studies pertaining to neuronal cell death, because in at least some of the reported studies, the causes of the cell death do not involve any effect on Aß fibrillogenesis. There is thus no implication available to serve as a teaching that inhibition of nerve cell death or nerve cell toxicity by Aß inherently leads to inhibition of Aß fibril formation, deposition, accumulation and/or persistence. The teaching of the cited reference is therefore not inherent in any of the rejected claims.

Since Mitsui Norin does not disclose the same or inherent therapeutic targets as those claimed, the original claims, as well as claims 17-18 are distinguished over the cited art and reconsideration is requested.

Claims 9 and 12 stand provisionally rejected as allegedly subject to obviousness-type double patenting. Applicant submits in response that it will file the appropriate terminal disclaimer upon an indication of allowable subject matter in this case.

Applicant believes that it has responded fully to all of the concerns expressed by the Examiner in the Office Action, and respectfully requests that the new Claims be entered and examined, and that early favorable action be taken on all claims pending in the application. Applicant respectfully requests reexamination of all rejected claims and early favorable action on them as well. If the Examiner has any further concerns, Applicant requests a call to Patrick Dwyer at (206) 343-7074.

Respectfully submitted,



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